

Remote Measurement of Heliostat Soiling Seminar

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1 PM MT / 3 PM ET



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Brought to you by the Heliostat Consortium Resource, Training, and Education (RTE) topic area

BIO

Derek Schulte is an opto-mechanical design consultant and sole proprietor of DKA Design LLC.

He previously led the development of multiple heliostats at Heliogen. In addition to heliostats, Derek brings over 25 years of experience developing consumer 3D printers, concentrated PV, and laser opto-mechanics for aerospace, defense, telecom, medical, and industrial applications.

ABSTRACT

This seminar presents progress and preliminary data from Phase I of the Soiling on Heliostats Estimated by Shaded and Unshaded Scatterometry (SHESUS) project, funded by HelioCon. The project aims to develop a method for remotely estimating heliostat soiling by remotely comparing the brightness of shaded and unshaded mirror regions, potentially eliminating the need to perform in-field mirror reflectance measurements as well as potentially providing comprehensive and timely field soiling data.

Preliminary camera-based observations of partially shaded (and artificially soiled) mirror coupons within a subscale angular testbed will be presented along with their corresponding hemispherical and directional reflectometer reflectance measurements.



U.S. Department of Energy

HelioCon

Heliostat Consortium for
Concentrating Solar-Thermal Power

HelioStat Consortium Seminar series host:
Dr. Ulrike Egerer

Register on Zoom: <http://bit.ly/4onr8aO>